Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte ANDERS BERGOVIST and HAKAN DAHLLOF

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Appeal No. 1998-0482
Application No. 08/404,908

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ON BRIEF

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Before GARRIS, PAK, and DELMENDO, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal which involves claims 1-15 and 17-31. These are all of the claims remaining in the application.

The subject matter on appeal relates to a process for bleaching pulp which comprises separating metals and metal

ions from a pulp prior to bleaching and adsorbing the metal and metal ions into the pulp after bleaching. Further details of this appealed subject matter are set forth in representative independent claim 1 which reads as follows:

1. A process for bleaching pulp comprising the steps of:

separating from a delignified pulp metals and metal ions to a flow of liquid;

bleaching the pulp; and

contacting the flow of liquid containing metals and metal ions to the bleached pulp under conditions whereby the metals and metal ions are adsorbed into the bleached pulp to thereby remove said metals and metal ions from the flow of liquid.

The references set forth below are relied upon by the examiner as evidence of obviousness:

Peter et al. (Peter)	5,145,557	Sep. 8, 1992
Lundgren et al. (Lundgren)(EP)	0 402 335	Dec. 12, 1990

Schleinkofer, "Overview of a Chlorine-Free Bleaching Process," Seminar Notes of the Technical Association of the Pulp and Paper Industry, Tappi Press, pp. 75-78, 1981.

All of the claims on appeal are rejected under 35 U.S.C. § 103 as being unpatentable over Peter in view of Schleinkofer and Lundgren.

We refer to the brief and reply brief and to the answer for a complete exposition of the opposing viewpoints expressed by the appellants and by the examiner concerning the above noted rejection.

OPINION

We cannot sustain the rejection before us on this appeal.

It is the examiner's fundamental position that contact between the acid filtrate and the final bleached pulp at the vacuum filter 33 of Peter would result in metals and metal ions in the acid filtrate liquid being adsorbed into the bleached pulp as required by the appealed claims. In support of this position, the examiner relies upon the secondary reference teachings and in particular the teaching of Schleinkofer that "[w]hen the acid filtrate is used for shower on the alkaline pulp from the oxygen or brown stock system, the metals are either reabsorbed or precipitated" (page 77). With respect to this last mentioned teaching, the examiner emphasizes that the final bleached pulp of Peter would constitute an alkaline pulp. The examiner further emphasizes that the appellants effect the here claimed adsorption of

metals and metal ions into the bleached pulp by adjusting pH to an alkaline condition.

This position is concisely characterized by the examiner in the paragraph bridging pages 4 and 5 of the answer as follows:

> The instant process teaches adjusting the pH to alkaline to insure adsorption of the ions. When read in view of the specification the only disclosed condition is an alkaline pH. The peroxide stage of PETER ET AL use NaOH to adjust the pH to alkaline. Thus the conditions of PETER ET AL are identical to the claimed "under conditions whereby the metals and metal ions are adsorbed into the bleached pulp."

We do not share the examiner's position primarily because no basis exists for assuming that the combination of Peter's acid filtrate liquid with his final bleached alkaline pulp at vacuum filter 33 would form a mixture having an alkaline pH to thereby effect adsorption of the metal and metal ions from the liquid into the bleached pulp as claimed by the appellants. To the contrary, we perceive the evidence of record before us as reflecting that the aforenoted mixture would have an acid pH rather than an alkaline pH. This is because Peter expressly teaches that his acid filtrate is used for de-ashing of pulp at vacuum filter 33 (e.g., see lines 30-43 in column 4 as well as lines 24-25 and lines 34-37 in column 5). As

argued by the appellants and acknowledged by the examiner (e.g., see the last paragraph on page 5 of the answer), the de-ashing of pulp referred to by Peter involves removing metal ions from the pulp. Moreover, it is reasonably clear from the teachings of Schleinkofer and Lundgren that metals from pulp go into solution under acidic conditions (e.g., again see page 77 of Schleinkofer as well as page 2 of Lundgren). It follows that the removal of ash or metals at vacuum filter 33 of Peter must be under an acidic rather than alkaline pH.

The examiner's position may also involve the proposition that an artisan with ordinary skill would have found it obvious to deliberately adjust the pH of the filtrate/pulp mixture at vacuum filter 33 of Peter in order to deliberately effect adsorption of metals and metal ions from the filtrate into the pulp. To the extent the examiner's position involves this proposition, we still cannot join with the examiner on this matter. This is because we agree with the appellants that the applied references simply contain no teaching or suggestion of adsorbing metals and metal ions into pulp from liquid in accordance with the claims before us.

In light of the foregoing, we cannot sustain the examiner's section 103 rejection of the appealed claims as being unpatentable over Peter in view of Schleinkofer and Lundgren.

The decision of the examiner is reversed.

REVERSED

Bradley R. Garris Administrative Patent Judge	)	
Chung K. Pak Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
Romulo H. Delmendo Administrative Patent Judge	)	

BRG:tdl

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